



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	
P0039126	ACI001-VC	10	1	Net 30	MT-A513-T-0.625W0.095	A513 Seamless Alloy Steel Round Tubing 0.625"dia. x 0.095" Wall				20	3/7/2018	22		S049614	Stock	3/9/2018	\$ 2.96 / ft	0		\$65.	
		11			MT-A513-T-0.750W0.095	A513 Seamless Alloy Steel Round Tubing 0.75"dia. x 0.095" Wall						23		S049615	Stock	3/9/2018	\$ 2.41 / ft	0		\$55.	
Total:										40		45									\$93.5

Plex 3/9/2018 10:48 AM Dart.Dubois.Pascal



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO039126

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO039126

PO Date: 2/26/18

Due Date: 3/2/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: clavoie@dartaero.com

E-MAILED

FEB 27 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments: quotation no: sou0087982

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M4140H-R1.000		4140 round bar 1.00 : AISI 4140H ROUND BAR PER AISI 4140OR ASTM A304-02/-A-434- BC/-A193-03-GRADE B7/- A29-03/-A322-91 OR UNS#-G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI	Firmed	3/2/18	12 ft	10' 0ft	12 ft	\$4.664/ft	\$55.97
									MAR 07 2018	
2	M304B0.500X6.000		304 Bar 0.500 X 6.000" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	3/2/18	6 ft	6' 0ft	6 ft	\$45.48666/ft	\$272.92
									MAR 07 2018	
3	M304B0.625X6.000		304 Bar 0.625 X 6.000" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	3/2/18	6 ft	6' 0ft	6 ft	\$55.83333/ft	\$335.00
									MAR 07 2018	
4	M304S11GA		304/316 0.125 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	3/2/18	96 sf	96' 0sf	96 sf	\$12.2298/sf	\$1,174.06
									MAR 07 2018	

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Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	M304S18GA		304/316 .050 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240	Firmed	3/2/18	64 sf	0 (sf)	64 sf	\$5.355/sf	\$342.72
						64			MAR 07 2018	
6	M304S16GA		304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	3/2/18	192 sf	0 (sf)	192 sf	\$6.508625/sf	\$1,249.66
						192			MAR 07 2018	
7	M304S20GA		304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	3/2/18	96 sf	0 (sf)	96 sf	\$3.9085416/sf	\$375.22
						96			MAR 07 2018	
8	M304R5.500		304 SS Round bar 5.500 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	3/2/18	8 ft	0 (ft)	8 ft	\$310.625/ft	\$2,485.00
						8			MAR 07 2018	
9	M304R0.625		304 SS Round bar 0.625 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	3/2/18	24 ft	0 (ft)	24 ft	\$2.6591666/ft	\$63.82
						26			MAR 07 2018	
10	MT-A513-T-0.625W0.095		A513 Seamless Alloy Steel Round Tubing 0.625"dia. x 0.095" Wall	Firmed	3/2/18	20 ft	0 (ft)	20 ft	\$2.9595/ft	\$59.19
						22			MAR 09 2018	
11	MT-A513-T-0.750W0.095		A513 Seamless Alloy Steel Round Tubing 0.75"dia. x 0.095" Wall	Firmed	3/2/18	20 ft	0 ft	20 ft	\$2.4095/ft	\$48.19
						23			MAR 09 2018	
12	MT-A513-T-1.000W0.120		A513 Seamless Alloy Steel Round Tubing 1"dia. x 0.120" Wall	Firmed	3/2/18	20 ft	0 (ft)	20 ft	\$2.4695/ft	\$49.39
						23			MAR 07 2018	
13	M6061T6B2.000X01.250		6061-T6 Bar 2.00 X 1.25 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	12 ft	0 (ft)	12 ft	\$10.1125/ft	\$121.35
						12			MAR 07 2018	

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Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
14	M6061T6B0.750X04.000		6061-T6 Bar .750 X 4.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	12 ft	0 ft	12 ft	\$10.429166/ft	\$125.15
							12		MAR 07 2018	
15	M6061T6B1.000X1.750		6061T6 Bar 1.000 X 1.750 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	12 ft	0 ft	12 ft	\$20.16666/ft	\$242.00
16	M304B0.750X2.500		304 Bar .750 X 2.50 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	3/2/18	36 ft	0 ft	36 ft	\$25.241944/ft	\$908.71
							36		MAR 07 2018	
17	M6061T6S.050		6061-T6 .050 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	3/2/18	96 sf	0 sf	96 sf	\$3.3095833/sf	\$317.72
							96		MAR 07 2018	
18	M6061T6S.250		6061T6 Sheet .250 : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	3/2/18	32 sf	0 sf	32 sf	\$9.92875/sf	\$317.72
							32		MAR 07 2018	
19	M1018R0.313		1018-1025 Round Bar .313 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108 receive ft	Firmed	3/2/18	12 ft	0 ft	12 ft	\$0.4958333/ft	\$5.95
							12		MAR 07 2018	
20	M1018B1.000X1.000		1010-1025 Steel Bar 1.000 X 1.000 : MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W	Firmed	3/2/18	12 ft	0 ft	12 ft	\$3.6025/ft	\$43.23
							12		MAR 07 2018	

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
									Grand Total:	\$8,592.96
Order Notes										
<p>Procurement Quality Clauses</p> <p>A005 right of entry</p> <p>A012 chemical and physical test report</p> <p>A016 personnel qualification</p> <p>A017 raw material identification (as applicable)</p> <p>A026 certification of material conformance</p> <p>A041 quality management system</p> <p>A042 dart notification by supplier</p> <p>A043 retention of quality documents</p> <p>A048 counterfeit parts avoidance, detection, mitigation and disposition program</p> <p>A049 supplier awareness</p> <p>Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.</p>										

Plex 2/26/18 2:10 PM dart.lavoie.chantal



DELIVERY - CLIENT

Copy CO00077365

ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CLI0001056
Date 2018/03/07
Delivery date **2018/03/09**
Your order N° 39126
Processed by Denis Quenneville
Salesman
Carrier OUELLETTE VALLEYFIELD
Credit Terme Net 30 Days
Page 1

Billed to
DART AEROSPACE LTD
1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

 , Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 TUBE MEC 0.625 OD X .095 (R) * TME-0625095 6763 <i>1 x HEAT: 15D2317</i> transit st-jerome le 8/03	12.91	24.00	PI_\$CPI		1x 22'7"		22				DAS 11 9-89 MAR 09 2018
3 TUBE MEC 0.750 OD X .095 (R) * TME-0750095 8163 <i>1 x HEAT: 15102800</i> transit st-jerome 28/03	15.96	24.00	PI_\$CPI		1x 23'		23				DAS 11 9-89 MAR 09 2018

Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (Lbs) : 28.87

NIR : R-109516-6

Prepared By: *[Signature]* Verified By: *[Signature]* Delivered By: *[Signature]* Time: *[Signature]*

Customer's Signature *[Signature]* Date 18/03/09

Total (\$CAD)

CO. 77365

DART



Material Test Report

7953 Washington Woods Dr.,
Dayton, OH 45459
Phone: (937)573-4875 Fax (702)926-4128

Date: 5/07/2016 MTR No. 0000056726
Ref No: 104702

TEST CERTIFICATE ACC TO DIN 50049 3.1 B/EN: 10204: 3.1

Part Number: 87-15955-10

PO Number: 87-15955

Description: A513T5-14; SRA; DOM; Grade=1020; Category=CARBON WELDED; Round; OD=0.625"; ID=0.435"; (WT=0.095"); Deburred; Length=240" to 288"

Product: TUBE

Ends: Deburred

Heat No: 15D2317

Steel Grade: 1020

DIMENSIONS			TOLERANCE			QUANTITY			
	MM	IN	-VE	+VE	UOM	NUMBER	METER / FT		WEIGHT TON
OD	15.875	0.625	0.0000	0.0050	IN	4	6,351.422	20,838.000	5.600
ID	11.049	0.435	0.0050	0.0000	IN	6,096.000 - 7,315.200 MM 240.000 - 288.000 IN			
WT	2.413	0.095	0.0000	0.0000	IN				

CHEMICAL ANALYSIS					MECHANICAL PROPERTIES				
ELEMENTS	UOM	MIN	MAX	MILL	PRODUCT	Y.S Psi	U.T.S Psi	% E	HARDNESS HRB
Carbon (C)	%	0.1800	0.2300	0.2040		MIN 55,000	85,000	10.00	75.00
Manganese (Mn)	%	0.3000	0.6000	0.4190					
Silicon (Si)	%			0.110		MAX 71,490	81,600	20.00	83.00
Aluminum (AL)	%			0.0350					
Phosphorus (P)	%		0.0350	0.0090		MILL 71,490	81,600	20.00	83.00
Sulfur (S)	%		0.0350	0.0050					
Chromium (Cr)	%					PROD			
Nickel (Ni)	%								
Molybdenum (Mo)	%					Sample Orientation:			
Vanadium (V)	%					Tensile Spec Type:			
Copper (Cu)	%					Gauge Width (MM):			
Columbium (CB)	%					Remarks:			
Calcium (Ca)	%								
Titanium (Ti)	%								
Nitrogen (N)	%								
Boron (B)	%								
Zirconium (Zr)	%								
Antimony (Sb)	%								
Tin (Sn)	%								

100% EDDY CURRENT TESTING- E309	PASSED
FLATTENING TEST	2/3% OF OD 1/3% OF OD PASSED
FLARING TEST	15% OF ID PASSED
STRAIGHTNESS	PASSED (1/1000 MM)

Remarks:

Melted In: INDIA Produced In: INDIA
Product is free of weld repair and has not come in contact with Mercury or any of its components.

We hereby Certify that the material described above conforms to Specification and Purchase Order.

Bill Johnston

Bill Johnston
Quality Co-ordinator

Any questions, Please email: TestReports@aaris-llc.com

TUM 58015

TPI Work Test Certificate



TUBE INVESTMENTS OF INDIA
TUBE PRODUCTS OF INDIA - MODULE - 1
POST BOX NO.4 & 18, M T H ROAD, AVADI, CHENNAI - 600054



Order No. : BC5283 /06-JAN-16

TC No : PAE/BC1610749
 Date : 31-JAN-16

Description : PRECISION STEEL TUBES - CDW
 Specification : ASTM A513 / A513M-15 T5 1020
 Condition : SRA
 Bundle No's : 016000794,016000793

Invoice No : 4421889573
 Invoice Date : 29-JAN-16
 Job /Batch No : RBCL1601415

Cust Part No :
 Bundle Tagging : CUSTOMER SIZE /CONDITION /QUANTITY /GROSS WEIGHT /TAG MARKING / WO.NO. / SPEC & GRADE /DESTINATION / BUNDLE NO /COUNTRY OF ORIGIN.

Tube Marking : P.O.NO. /TPI-ED /SIZE /SPEC /CONDITION/ TAG MARKING/ HEAT NO. /MADE IN INDIA.
 P. Uom : Inches
 Size : .750" OD x .560" ID x 0.095" WT x 20'- 24' R/L

Quantity In : 4250.591 Ft

LADLE ANALYSIS :

Process	Heat No.	%C	%Mn	%P	%S	%Si	%Al
Min		.18	.3				
Max		.23	.6	.035	.035		
Obs	15102800	.185	.52	.005	.005	.011	.044

Full Section Longitudinal Tensile Test at Room Temp

Test	Heat No	Y.S	T.S	Eng.
Min		379	448	10
Max				
		MPA	MPA	%
OBS	15102800	475.15	587.1	23

Rock Well Hardness

75 HRB
82 HRB

Dimensions in : Inches

Spec	OD	ID	WT	Length
Min	.75	.555		240
Max	.755	.56		288
OBS-Min	.752	.556	0	240
OBS-Max	.754	.559	0	287.992

Technological Tests :

Test	Spec	Result
Crushing		-
Flaring		-
Flattening		-
Flanging		-
Rev. Flang.		-
Eng. Gaug. Len		

Non-Destructive Tests :

Test	Spec	Result
Roughness OD		
Roughness ID		
Straightness	0.76/1000 MM MAX	0.30/1000 MM
Eddy Current	100	100% TESTED OK
Visual		DEFECT FREE
Ultrasonic Test		-

This is to certify that the goods are supplied as per the purchase order and specification Requirements

Prepared by : K. Yuvarajani.

Quality Shift Incharge Signature:

for Tube Investments of India
 Unit: Tube Products of India Module - 1

Mathavan.M
 Mgr-Quality-IBP-TP

9163

AC7785

125070 Item-CDM .750 .095 .560 Heat #-15102800

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-A513-T-0.750W0.095

PO / BATCH NO.: 039126/5049615

DATE: MAR 09 2018

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 23'
 QUANTITY INSPECTED: 23'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: W0.095
 THICKNESS RECEIVED: W0.095
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Aston A513</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 15102800</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>	SIGNED OFF BY: _____		
DATE: <u>9-89 MAR 09 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW RELEASE	17-655	17.09.06	VM	WM
B	TYPE 5 ADDED, TEMPLATE UPDATED	17-790	17.12.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)

SPECIFICATION: ASTM A513 TYPE 5

PART NUMBER: MT-A513-T-[D.DDD]W[T.TTT]

WHERE D.DDD IS OUTSIDE DIAMETER IN INCHES

WHERE T.TTT IS WALL THICKNESS IN INCHES

EG. 3/4" ROUND TUBING WITH .120" WALL THICKNESS = MT-A513-T-0.750W0.120

DART AEROSPACE		Hawkesbury, Ontario, Canada	
TITLE ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING (DOM)			
PART NO. MT-A513-T		REV B	
TOOL NO. -		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES INTERPRET PER ASME Y14.5M-2009 DIMENSIONS APPLY AFTER FINISHING	
DESIGNED BY: VM 17/12/13	INITIALS AND DATE	TOLERANCES: XXX ± .005 FRACTIONS ± 1/8 XX ± .01 ANGLES ± .5° X ± .1 SURFACE ROUGHNESS	
DRAWN BY: VM 12/13/2017			
CHECKED BY: ML 12/20/2017			
MFG REVIEW BY: DP 12/20/2017			
APPROVED BY: ML 12/20/2017		SCALE: NTS	SHEET 1 OF 1
COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-A513-T-O.625W/O.095

PO / BATCH NO.: 039126/504614

DATE: MAR 09 2018

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 22'
 QUANTITY INSPECTED: 22'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: W/O.095
 THICKNESS RECEIVED: W/O.095
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Astun A513 T5</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat #15D2317</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u>	SIGNED OFF BY: _____
DATE: <u>9-MAR 09 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW RELEASE	17-655	17.09.06	VM	WM
B	TYPE 5 ADDED, TEMPLATE UPDATED	17-790	17.12.13	VM	ML

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)


SPECIFICATION: ASTM A513 TYPE 5

PART NUMBER: MT-A513-T-[D.DDD]W[T.TTT]

WHERE D.DDD IS OUTSIDE DIAMETER IN INCHES

WHERE T.TTT IS WALL THICKNESS IN INCHES

EG. 3/4" ROUND TUBING WITH .120" WALL THICKNESS = MT-A513-T-0.750W0.120

 DART AEROSPACE		Hawkesbury, Ontario, Canada	
TITLE			
ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING (DOM)			
PART NO.		REV	
MT-A513-T		B	
TOOL NO.		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES INTERPRET PER ASME Y14.5M-2009 DIMENSIONS APPLY AFTER FINISHING	
INITIALS AND DATE			
DESIGNED BY:	VM 17/12/13	TOLERANCES:	FRACTIONS ± 1/8
DRAWN BY:	VM 12/13/2017	XX ± .005	ANGLES ± .5°
CHECKED BY:	ML 12/20/2017	XX ± .01	SURFACE
MFG REVIEW BY:	DP 12/20/2017	X ± .1	ROUGHNESS
APPROVED BY:	ML 12/20/2017	SCALE: NTS	SHEET 1 OF 1
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